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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,333	11/28/2001	Peter Buck	064441.0219	3572

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EXAMINER

MOHAMEDULLA, SALEHA R

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/996,333

Applicant(s)

BUCK, PETER

Examiner

Saleha R. Mohamedulla

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-14, 16, 24-28 and 30 is/are allowed.
- 6) ☒ Claim(s) 1-4, 8, 9, 15 and 29 is/are rejected.
- 7) ☒ Claim(s) 5-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

Claims 1-16 and 24-30 are pending.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 8, 15 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. The claims recite “approximately one micron to approximately ten microns.” It is unclear as to what is meant by “approximately.” The range is not definite. Correction and/or clarification is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4 and 8-9 are rejected under 35 U.S.C. 102(e) as being anticipated by US# 6284413 to Adams.

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Adams teaches a system for, and method of, manufacturing a semicustom reticle for an integrated circuit (IC) and an IC manufactured by the system or the method. In one embodiment, the system includes: (1) a library of reticle primitives, at least two of the reticle primitives containing patterns corresponding to portions of a layer to be created by the semicustom Reticle and (2) exposure equipment that employs the at least two of the recticle primitives to create an image of the patterns on the semicustom reticle to allow the semicustom reticle to create the layer in a single lithographic step (Abstract). Adams also teaches that the single device pattern, or reticle, is then replicated repeatedly using a step-and-repeat camera (commonly known as a stepper) to form the array of devices and interconnects that cover the semiconductor substrate (col. 1, lines 50-60). Therefore, Adams teaches the limitations of claim 1. Adams teaches the semicustom reticle includes a transparent substrate and a pattern defined by an opaque material and formed on the transparent substrate, the pattern transferred on the transparent substrate from at least two reticle primitives containing patterns corresponding to a device level of an IC (col. 2, line 50 – col. 3, line 10). Therefore, Adams teaches developing the layer to form the cell. It is inherent that the step and repeat process includes the limitations of claim 3. Adams teaches that the reticles can comprise IC patterns that include SRAM, DSP and other-circuitry (col. 4, lines 55-65). Therefore, Adams teaches the limitations of claim 9.

Response to Arguments

6. Applicant argues that Adams does not teach moving a selected feature from a first pattern file to a second pattern file. However, Adams teaches manufacturing a semicustom reticle. This reticle is used to expose the underlying photoresist layer. The semicustom reticle is made

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by using at least two reticle primitives chosen from a library of reticle primitives. The selected feature from a first pattern file (that is, the first reticle primitive) is moved to a second pattern file (that is, the at least second reticle primitive) to create the semicustom reticle. Therefore, Applicant's arguments are not persuasive.

Allowable Subject Matter

7. Claims 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 10-14, 16, 24-28 and 30 are allowed.

9. Claims 15 and 29 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. The prior art does not teach or suggest moving OPC features from a first file to a second file, where the features are located between an outer and inner boundary for a plurality of cells in an array. The prior art does not teach or suggest the reducing dimensions or inserting a blocking feature step.


Conclusion

11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Saleha Mohamedulla whose telephone number is (571) 272-1387. The Examiner can normally be reached Monday-Friday, from 8:00 AM to 4:30 PM.

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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mark Huff, can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Saleha R. Mohamedulla
Patent Examiner
Technology Center 1700
June 3, 2004